

We claim:

1. A method for treating AT by administering to an animal a therapeutically effective amount of a chelating agent and a pharmaceutically acceptable carrier.
2. The method of claim 1 wherein treatment additionally comprising administering a therapeutically effective amount of an antioxidant.
3. The method of claim 1 wherein the chelating agent comprises substances capable of binding any transition metal.
4. The method of claim 1 wherein the chelating agent is selected from the group consisting of ferrioxamine, trihydroxamic acid, CP94, EDTA, desferrioxamine hydroxamic acids, deferoxamine B (DFO) as the methanesulfonate salt, also known as desferrioxamine B mesylate (DFOM), desferal from Novartis (previously Ciba-Giegy), apoferritin, CDTA (trans-1,2-diaminocyclohexane-N,N,N',N'-tetraacetic acid), and DTPA (diethylenetriamine-N,N,N',N'',N''-penta-acetic acid), and a pharmaceutically acceptable chelating agent of iron thereof.
5. The method of claim 1 wherein the chelating agent is capable of crossing cell membranes.
6. The method of claim 1 wherein the chelating agent is selected from the group consisting of penicillamine, triene, bathocuproine disulfonate, diethylenetriamine pentaacetic acid, and a pharmaceutically acceptable chelating agent of copper thereof.
7. The method of claim 2 wherein the antioxidant is a flavonoid or a derivative thereof.
8. The method of claim 7 wherein the flavonoid is selected from the group of quercetin, morin, naringenin and hesperetin, taxifolin, afzelin, quercitrin, myricitrin, genistein, apigenin and biochanin A, flavone, flavopiridol; the soy isoflavonoid, genistein; the tea catechin epigallocatechin gallate; flavonol, epicatechin, hesperetin, chrysin, diosmin, hesperidin, luteolin, and rutin.
9. The method of claim 1 wherein the cell or animal is under oxidative stress.
10. The method of claim 1 wherein a substance that induces a chelating agent to bind a transition metal is administered.
11. A method for treating AT by administering to cells a therapeutically effective amount of a chelating agent and a pharmaceutically acceptable carrier so that genomic stability in

said cells is increased compared to cells that were not treated as quantified in viability assays.

12. The method of claim 11 wherein treatment additionally comprises administering a therapeutically effective amount of an antioxidant.
13. The method of claim 11 wherein the chelating agent comprises substances capable of binding any transition metal.
14. The method of claim 11 wherein the chelating agent is selected from the group consisting of ferrioxamine, trihydroxamic acid, CP94, EDTA, desferrioxamine hydroxamic acids, deferoxamine B (DFO) as the methanesulfonate salt, also known as desferrioxamine B mesylate (DFOM), desferal from Novartis (previously Ciba-Giegy), apoferritin, CDTA (trans-19,2-diaminocyclohexane-N,N,N',N'-tetraacetic acid), and DTPA (diethylenetriamine-N,N,N',N'',N''-penta-acetic acid), and a pharmaceutically acceptable chelating agent of iron thereof.
15. The method of claim 11 wherein the chelating agent is capable of crossing cell membranes.
16. The method of claim 11 wherein the chelating agent is selected from the group consisting of penicillamine, triene, bathocuproine disulfonate, diethylenetriamine pentaacetic acid, and a pharmaceutically acceptable chelating agent of copper thereof.
17. The method of claim 12 wherein the antioxidant is a flavonoid or a derivative thereof.
18. The method of claim 17 wherein the flavonoid is selected from the group of quercetin, morin, naringenin and hesperetin, taxifolin, afzelin, quercitrin, myricitrin, genistein, apigenin and biochanin A, flavone, flavopiridol; the soy isoflavonoid, genistein; the tea catechin epigallocatechin gallate; flavonol, epicatechin, hesperetin, chrysin, diosmin, hesperidin, luteolin, and rutin.
19. The method of claim 11 wherein the cell or animal is under oxidative stress.
20. The method of claim 11 wherein a substance that induces a chelating agent to bind a transition metal is administered.
21. A method for treating AT by administering to cells a therapeutically effective amount of a chelating agent and a pharmaceutically acceptable carrier so that oxidative stress in said cells is decreased compared to cells that were not treated as quantified in viability assays.

22. The method of claim 21 wherein treatment additionally comprises administering a therapeutically effective amount of an antioxidant.
23. The method of claim 21 wherein the chelating agent comprises substances capable of binding any transition metal.
24. The method of claim 21 wherein the chelating agent is selected from the group consisting of ferrioxamine, trihydroxamic acid, CP94, EDTA, desferrioxamine hydroxamic acids, deferoxamine B (DFO) as the methanesulfonate salt, also known as desferrioxamine B mesylate (DFOM), desferal from Novartis (previously Ciba-Giegy), apoferritin, CDTA (trans-3,3',5,5'-diaminocyclohexane-N,N',N''-tetraacetic acid), and DTPA (diethylenetriamine-N,N',N'',N''-penta-acetic acid), and a pharmaceutically acceptable chelating agent of iron thereof.
25. The method of claim 21 wherein the chelating agent is capable of crossing cell membranes.
26. The method of claim 21 wherein the chelating agent is selected from the group consisting of penicillamine, triene, bathocuproine disulfonate, diethylenetriamine pentaacetic acid, and a pharmaceutically acceptable chelating agent of copper thereof.
27. The method of claim 22 wherein the antioxidant is a flavonoid or a derivative thereof.
28. The method of claim 27 wherein the flavonoid is selected from the group of quercetin, morin, naringenin and hesperetin, taxifolin, afzelin, quercitrin, myricitrin, genistein, apigenin and biochanin A, flavone, flavopiridol; the soy isoflavonoid, genistein; the tea catechin epigallocatechin gallate; flavonol, epicatechin, hesperetin, chrysin, diosmin, hesperidin, luteolin, and rutin.
29. The method of claim 21 wherein the cell or animal is under oxidative stress.
30. The method of claim 21 wherein a substance that induces a chelating agent to bind a transition metal is administered.
31. A method for treating AT by administering to an animal a therapeutically effective amount of a chelating agent and a pharmaceutically acceptable carrier and an antioxidant.
32. A method for treating AT by administering a therapeutically effective amount of an antioxidant.
33. The method of claim 32 wherein the antioxidant is a flavonoid or a derivative thereof.

34. The method of claim 33 wherein the flavonoid is selected from the group of quercetin, morin, naringenin and hesperetin, taxifolin, afzelin, quercitrin, myricitrin, genistein, apigenin and biochanin A, flavone, flavopiridol; the soy isoflavonoid, genistein; the tea catechin epigallocatechin gallate; flavonol, epicatechin, hesperetin, chrysin, diosmin, hesperidin, luteolin, and rutin..
35. The method of claim 32 wherein the cell or animal is under oxidative stress.
36. A method for providing a composition for treating AT comprising providing a composition comprising a chelating agent and a pharmaceutically acceptable carrier.
37. The method of claim 36 wherein the composition additionally comprises a therapeutically effective amount of an antioxidant.
38. The method of claim 36 wherein the chelating agent comprises substances capable of binding any transition metal.
39. The method of claim 36 wherein the chelating agent is selected from the group consisting of ferrioxamine, trihydroxamic acid, CP94, EDTA, desferrioxamine hydroxamic acids, deferoxamine B (DFO) as the methanesulfonate salt, also known as desferrioxamine B mesylate (DFOM), desferal from Novartis (previously Ciba-Giegy), apoferritin, CDTA (trans-1,2-diaminocyclohexane-N,N,N',N'-tetraacetic acid), and DTPA (diethylenetriamine-N,N,N',N'',N''-penta-acetic acid), and a pharmaceutically acceptable chelating agent of iron thereof.
40. The method of claim 36 wherein the chelating agent is capable of crossing cell membranes.
41. The method of claim 36 wherein the chelating agent is selected from the group consisting of penicillamine, triene, bathocuproine disulfonate, diethylenetriamine pentaacetic acid, and a pharmaceutically acceptable chelating agent of copper thereof.
42. The method of claim 37 wherein the antioxidant is a flavonoid or a derivative thereof.
43. The method of claim 42 wherein the flavonoid is selected from the group of quercetin, morin, naringenin and hesperetin, taxifolin, afzelin, quercitrin, myricitrin, genistein, apigenin and biochanin A, flavone, flavopiridol; the soy isoflavonoid, genistein; the tea catechin epigallocatechin gallate; flavonol, epicatechin, hesperetin, chrysin, diosmin, hesperidin, luteolin, and rutin.
44. The method of claim 36 wherein the cell or animal is under oxidative stress.

45. The method of claim 36 wherein a substance that induces a chelating agent to bind a transition metal is administered.